

IN THE CLAIMS:

Kindly amend the claims, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows:

Claim 1 (currently amended): A polypeptide selected from the group consisting of

- C⁸
- (a) a fusion polypeptide which comprises a first amino acid sequence including at least one stretch of amino acids constituting a T-cell epitope ~~derived~~ from the *M. tuberculosis* protein ESAT-6, and a second amino acid sequence including at least one stretch of amino acids constituting a T-cell epitope ~~derived~~ from the *M. tuberculosis* protein Ag85B, said first and second amino acid sequences optionally being fused via a linker sequence;
 - (b) a polypeptide comprising an amino acid sequence analogue having at least 70% sequence identity to the sequence in (a) and at the same time being immunogenic; and
 - (c) a fusion polypeptide which comprises a first amino acid sequence having at least 70% sequence identity to the first amino acid sequence in (a) and at the same time being immunogenic, and a second amino acid sequence having at least 70% sequence identity to the second amino acid sequence in (a) and at the same time being immunogenic, said first and second amino acid sequences optionally being fused via a linker sequence.

Claim 2 (original): A polypeptide according to claim 1, wherein the degree of sequence identity is at least 75%.

Claim 3 (original): A polypeptide according to claim 1, wherein the first amino acid sequence is situated C-terminally to the second amino acid sequence.

Claim 4 (original): A polypeptide according to claim 1, wherein the first amino acid sequence is situated N-terminally to the second amino acid sequence.

Claim 5 (original): A polypeptide according to claim 1, wherein no linkers are introduced between the two amino acid sequences in (a) or (c).

Claim 6 (original): A polypeptide according to claim 1, which is Ag85B fused N- or C-terminally to ESAT-6.

Claim 7 (original): A polypeptide according to claim 1, which is lipidated so as to allow a self-adjuvating effect of the polypeptide.

Claim 8 (original): A polypeptide according to claim 1 for use as a vaccine or as a pharmaceutical.

Claim 9 (currently amended): A method for preparing Use of a polypeptide according to claim 1 for the preparation of a pharmaceutical composition, e.g. for the vaccination against infections caused by virulent mycobacteria, e.g. by *Mycobacterium tuberculosis*, *Mycobacterium africanum* or *Mycobacterium bovis*; wherein the pharmaceutical composition comprises the polypeptide of claim 1.

Claim 10 (original): An immunogenic composition comprising a polypeptide according to claim 1.

Claim 11 (original): An immunogenic composition according to claim 10, which is in the form of a vaccine.

Claims 12-20 (withdrawn)

Claim 21 (currently amended): A method for producing a polypeptide according to claim 1, comprising

(a) inserting a nucleic acid fragment according to claim 12 comprising a nucleic acid sequence that encodes a polypeptide as defined in claim 1, or comprising a nucleic acid sequence complementary thereto, into a vector which is able to replicate in a host cell, introducing the resulting recombinant vector into the host cell, culturing the host cell in a culture medium under conditions sufficient to effect expression of the polypeptide, and recovering the polypeptide from the host cell or culture medium;

- (b) isolating Ag85B and ESAT-6 from a whole mycobacterium, e.g. *Mycobacterium tuberculosis*, *Mycobacterium africanum* or *Mycobacterium bovis*, from culture filtrate or from lysates or fractions thereof, and fusing the polypeptides;
- (c) synthesizing the polypeptide e.g. by solid or liquid phase peptide synthesis; or
- (d) a combination of the methods in (a), (b) and/or (c).

Claim 22 (withdrawn)

Claim 23 (currently amended): A pharmaceutical composition which comprises an immunologically responsive amount of at least one member selected from the group consisting of:

- (a) a fusion polypeptide which comprises a first amino acid sequence including at least one stretch of amino acids constituting a T-cell epitope ~~derived~~ from the *M. tuberculosis* protein ESAT-6, and a second amino acid sequence including at least one stretch of amino acids constituting a T-cell epitope ~~derived~~ from the *M. tuberculosis* protein Ag85B, said first and second amino acid sequences optionally being fused via a linker sequence;
- (b) a polypeptide comprising an amino acid sequence which has a sequence identity of at least 70% to any one of said polypeptides in (a) and at the same time being immunogenic; and
- (c) a fusion polypeptide comprising at least one polypeptide or amino acid sequence according to (a) or (b) and at least one fusion partner;
- ~~(d) a nucleic acid sequence which encodes a polypeptide according to (a), (b) or (c);~~
- ~~(e) a nucleic acid sequence which is complementary to a sequence according to (d);~~
- ~~(f) a nucleic acid sequence which has a length of at least 10 nucleotides and which hybridizes under stringent conditions with a nucleic acid sequence according to (d) or (e); and~~
- ~~(g) a non-pathogenic micro-organism which has incorporated (e.g. placed on a plasmid or in the genome) therein a nucleic acid sequence according to (d), (e) or (f) in a manner to permit expression of a polypeptide encoded thereby.~~

Claim 24 (withdrawn)

Claim 25 (currently amended): ~~Vaccine according to claim 15 or 18,~~ An immunogenic composition according to claim 10 or pharmaceutical composition according to claim 23, characterized in that said ~~vaccine~~/immunogenic composition/pharmaceutical composition can be used prophylactically in a subject not infected with a virulent mycobacterium; or therapeutically in a subject already infected with a virulent mycobacterium.

Claim 26 (previously added): A pharmaceutical composition which comprises an immunologically responsive amount of at least one member selected from the group consisting of:

- (a) a fusion polypeptide which comprises a first amino acid sequence including at least one stretch of amino acids constituting a T-cell epitope from the M. tuberculosis protein ESAT-6, and a second amino acid sequence including at least one stretch of amino acids constituting a T-cell epitope from the M. tuberculosis protein AG85B, said first and second amino sequences optionally being fused via a linker sequence;
- (b) a polypeptide comprising an amino acid sequence which has a sequence identity of at least 70% to any one of said peptides in (a) and at the same time being immunogenic; and
- (c) a fusion polypeptide comprising at least one polypeptide or amino acid sequence according to (a) or (b) and at least one fusion partner.

Claim 27 (previously added): Immunogenic composition according to claim 10 or pharmaceutical composition according to claim 26, characterized in that said immunogenic composition/pharmaceutical composition can be used prophylactically in a subject not infected with a virulent mycobacterium; or therapeutically in a subject already infected with a virulent mycobacterium.

Claim 28 (previously added): A method for producing a polypeptide according to claim 1, comprising

- (a) inserting a nucleic acid fragment which comprises a nucleic acid sequence which encodes the polypeptide, or which comprises a nucleic acid sequence complementary thereto into a vector which is able to replicate in a host cell, introducing the resulting recombinant vector into the host cell, culturing the host cell in a culture medium under conditions sufficient to effect expression of the polypeptide, and recovering the polypeptide from the host cell or culture medium; or

- (b) isolating Ag85B and ESAT-6 from a whole mycobacterium, from culture filtrate or from lysates or fractions thereof, and fusing the polypeptides;
- (c) synthesizing the polypeptide e.g. by solid-phase or liquid-phase peptide synthesis; or
- (d) a combination of the methods in (a), (b), and/or (c).

Claim 29 (previously added): The method of claim 28 wherein the mycobacterium is *Mycobacterium tuberculosis*, *Mycobacterium africanum*, or *Mycobacterium bovis*.

Claim 30 (previously added): The polypeptide according to claim 1 which contains a T-cell epitope of ESAT-6 and a T-cell epitope of Ag85B.

Claim 31 (withdrawn)

IN THE DRAWINGS:

Kindly replace the previously filed drawings with the enclosed Formal Drawings.